

Remarks/Arguments

This Amendment is submitted in response to the Office Action mailed April 27, 2009, which was made final. Claims 1 and 4-24 are rejected. In this Amendment, claims 1, 4, 13, 14, and 22-24 have been amended. No claims have been canceled or added. It is respectfully submitted that the amendment does not add new matter. Applicants reserve all rights with respect to the applicability of the Doctrine of Equivalents. Applicants respectfully request consideration of the subject application as amended herein.

Priority

The Examiner has indicated that a certified copy of application PCT/US2004/003438, from which the present application claims foreign priority, is required under 35 U.S.C. § 119(b). Applicants have requested the certified copy and will submit said certified copy when it has been received from the patent office.

Claim Rejections under 35 U.S.C. §112

Claims 1-24 stand rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 1, 14, 23, and 24 stand rejected under 35 U.S.C. §112, second paragraph, as being incomplete for omitting essential steps, such omission amounting to a gap between the steps (Final Office Action, mailed 4/27/09, page 4). Applicants respectfully disagree. The Examiner states that claims 1 and 24 omit "verifying the signature by the service provider" and that claims 14 and 23 omit "the service provider verifying the signature" (Final Office Action, 4/27/09, page

4). Applicants respectfully submit, however, that no essential elements have been omitted from the claims. The Examiner references processes/actions performed by a foreign service provider. Applicants' claims, however, are not directed to a foreign service provider, and thus the alleged omitted limitations should not be included within the claimed methods, apparatus, and article of manufacture. Therefore, Applicants respectfully submit that no essential elements have been omitted from the claims, and respectfully request withdrawal of the rejection of claims 1, 14, 23, and 24 under 35 U.S.C. § 112, second paragraph.

Claims 1, 14, 23, and 24 stand rejected under 35 U.S.C. § 112, second paragraph, as reciting continuing to use the service while the service was not initially utilized (Final Office Action, mailed 4/27/09, page 5). Applicants have amended the claims to recite, for example and with respect to claim 1, "using the service while the foreign service provider accepts tokens." Applicants have similarly amended claims 14, 23, and 24. In view of these amendments, Applicants respectfully submit that the rejection under §112, second paragraph, has been overcome, and request withdrawal of the rejection.

Claim 13 stands rejected under 35 U.S.C. § 112, second paragraph, as failing to claim how the home service provider is informed (Final Office Action, mailed 4/27/09, page 5). Although Applicants do not believe it necessary, Applicants have amended claim 13 to recite in part "transmitting data to the home service provider that informs the home service provider of a monetary value of the dense hash tree based on a number of tokens in the dense hash tree" to clarify how the home service provider is informed of the monetary value of a dense hash tree. In view of this amendment, Applicants respectfully submit that the rejection under §112, second paragraph, has been overcome, and request withdrawal of the rejection.

Claim 13 stands rejected under 35 U.S.C. § 112, second paragraph, as being unclear with respect to the claimed payments (Final Office Action, mailed 4/27/09, page 5). Although Applicants do not believe it necessary, Applicants have amended claim 13 to recite in part "wherein the monetary value of the dense hash tree enables the home service provider to make monetary payments to the foreign service provider based on the one or more tokens provided to the foreign service provider" to clarify how the dense hash tree value enables a home service provider to make payments to foreign service provider. In view of this amendment, Applicants respectfully submit that the rejection under §112, second paragraph, has been overcome, and request withdrawal of the rejection.

Claim 22 stands rejected under 35 U.S.C. § 112, second paragraph, as being unclear when certain steps occur (Final Office Action, mailed 4/27/09, page 5). Applicants have amended claim 22 to recite in part "to generate a hash tree, the processor provides a root value of a dense hash tree to a home service provider" to clarify claim 22's features with respect to claim 14, from which it depends. In view of this amendment, Applicants respectfully submit that the rejection under §112, second paragraph, has been overcome, and request withdrawal of the rejection.

Claim 22 stands rejected under 35 U.S.C. § 112, second paragraph, for reasons similar to those discussed above with respect to claim 13 (Final Office Action, mailed 4/27/09, page 5). Applicants have amended claim 22 similarly to claim 13. Thus, for the reasons discussed above with respect to claim 13, Applicants respectfully submit that the rejection under §112, second paragraph, has been overcome, and request withdrawal of the rejection.

The Examiner rejects the method claims under 35 U.S.C. § 112, second paragraph, for failing to indicate within the claims which device is controlling each step (Final Office Action,

mailed 4/27/09, pages 5-6). Applicants respectfully submit that § 112 does not require that specific devices be recited in each step of a method claim. Furthermore, as described in Applicants' specification, a processor, such as the processor described in Figure 5, is one of any number of devices capable of performing the claimed method. Applicants welcome the Examiner to explain his position further, but absent such an explanation, Applicants respectfully request the Examiner to withdraw the rejection under 35 U.S.C. § 112.

Claim Rejections under 35 U.S.C. §103(a)

Claims 1 and 7-24 stand rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Publication No. 2003/0061170 to Uzo (hereinafter "Uzo") in view of U.S. Patent No. 4,309,569 to Merkle (hereinafter "Merkle"). Applicants respectfully disagree.

Uzo describes a method and system to allow users to purchase goods or services via a creditor clearing service (Uzo, Figure 1; paragraphs 0045-0047). When a user makes a request to purchase goods or services, a merchant is provided a token and password from a user. The merchant verifies the token and password with a clearing center. The user may then make purchases from the merchant, and the merchant decrements the original token as the user continues to make purchases. When the transaction is complete, the token is returned to the user from the merchant (Uzo, paragraphs 0126-0138). As described in Uzo, the token may be transmitted in encrypted form, but the tokens merely consist of various identification fields (i.e., token ID, user ID, account information, etc.) (Uzo, paragraphs 0073-0086).

Merkle describes a method for providing signatures. In the method described by Merkle, an authentication tree operates as a one-way function of a secret number to provide a digital

signature (Merkle, column 2, lines 16-32; Figure 1). Merkle, however, merely describes the use of a binary tree structure in the signature process (Merkle, column 3, lines 3-40).

A computer-implemented method performed on a device comprising:
requesting a desired service through a foreign service provider;
generating a hash tree and generating a digital signature on a root value of the hash tree;
sending the digital signature and the root value to the foreign service provider as a first packet;
receiving data indicating that the service provider has verified the signature;
providing one or more tokens to the foreign service provider with a next packet after the foreign service provider has verified the signature to use the service, wherein the one or more tokens are generated using the hash tree; and
using the service while the foreign service provider accepts tokens.

(Emphasis Added)

Applicants respectfully submit that a combination of Uzo and Merkle fail to describe or suggest "providing one or more tokens to the foreign service provider with a next packet after the foreign service provider has verified the signature to use the service, wherein the one or more tokens are generated using the hash tree; and using the service while the foreign service provider accepts tokens."

Uzo describes a transaction system in which a merchant receives a token from a user, verifies the token with a clearing center, and then updates the received token's value as the user makes purchases. The token includes various fields, such as token ID, encryption date and time, amount, key, etc. (Uzo, paragraphs 0073-0085). Nowhere within the discussion of the token fields, as well as the remainder of Uzo, are any token values, token fields, or the tokens themselves generated using a hash tree. Uzo is silent as to "providing one or more tokens to the foreign service provider with a next packet after the foreign service provider has verified the signature to use the service, wherein the one or more tokens are generated using the hash tree," as claimed.

Furthermore, the token supplied to the merchant in Uzo is the only token that is described as being received by the merchant. The merchant, which is already in possession of the token, check's the token's credential and modifies the token's value as the user makes purchases on the website. The original token with the adjusted value is then returned to the user (Uzo, paragraphs 0127 and 0130). Because Uzo only describes the receipt and use of a single token for user identification and user-merchant transactions, Uzo also fails to describe or suggest providing tokens after verification and "using the service while the foreign service provider accepts tokens."

Merkle merely describes an authentication tree in a digital signature process. Merkle is silent as to generating tokens to use services, using a hash tree to generate tokens for use of a service, or using a service while tokens are being accepted. Therefore, Merkle fails to remedy the shortcomings of Uzo discussed above and thus also fails to describe or suggest "providing one or more tokens to the foreign service provider with a next packet after the foreign service provider has verified the signature to use the service, wherein the one or more tokens are generated using the hash tree."

The Examiner states that although the conditional elements have been considered, the conditional elements do not limit a claim (Final Office Action, mailed 4/27/09, pages 6-7). As discussed above, Applicants have amended the claims to remove the noted conditional language. In view of these amendments, and the remarks above, Applicants respectfully submit that a combination of Uzo and Merkle, whether taken alone or in combination, fails to teach or suggest each and every feature as claimed.

Therefore, Uzo and Merkle fail to render claim 1, and the claims that depend therefrom, obvious. Claims 14, 23, and 24 include similar limitations and features. Therefore, for similar

reasons, claims 14, 23, and 24, and the claims that depend therefrom, are also not rendered obvious by Uzo in view of Merkle.

Therefore, Applicants respectfully request withdrawal of the rejection of claims 1-3 and 7-24 under 35 U.S.C. §103(a) as being unpatentable over Uzo in view of Merkle.

Allowable Subject Matter

Applicants note with appreciation the Examiner's indication of allowable subject matter. The Examiner rejects claims 4-6 under 35 U.S.C. § 112, 2nd paragraph, for reasons similar to those applied to independent claim 1. Applicants have amended claim 4, similar to the amendments discussed above with respect to independent claim 1, to overcome the rejections under § 112, 2nd paragraph. Thus, Applicants request withdrawal of the rejection of claim 4-6 under 35 U.S.C. § 112. Applicants respectfully submit that because there are no outstanding rejections applicable to claims 4-6, claims 4-6 are in condition for allowance.

35 U.S.C. § 112, 6th Paragraph

The Examiner states that the use of "means for" in claims 20-24 does not invoke 35 U.S.C. § 112 6th paragraph. Applicants respectfully disagree. Applicants are unable to find any language within 35 U.S.C. § 112, or the cited *Supplemental Examination Guidelines*, that requires Applicants to specifically invoke § 112 6th paragraph. Rather, the *Supplemental Examination Guidelines* and section 2181.I of the MPEP state "[a] claim limitation will be presumed to invoke 35 U.S.C. 112, sixth paragraph, if it meets the following 3-prong analysis: (A) the claim limitations must use the phrase "means for" or "step for;" (B) the "means for" or "step for" must be modified by functional language; and (C) the phrase "means for" or "step for"

must not be modified by sufficient structure, material, or acts for achieving the specified function." The Applicants respectfully note that claim 23 is the only claim currently pending that includes "means for" language, and satisfies the requirements set forth in the MPEP to invoke 35 U.S.C. § 112, sixth paragraph. If an express invocation is required under the U.S.C., the MPEP, or the *Supplemental Examination Guidelines*, Applicants respectfully request the Examiner to direct the Applicants to the requirement.

Conclusion


Applicant respectfully submits that in view of the amendments and discussion set forth herein, the applicable rejections have been overcome. Accordingly, the present and amended claims should be found to be in condition for allowance.

If a telephone interview would expedite the prosecution of this application, the Examiner is invited to contact Michael J. Mallie at (408) 720-8300.

If there are any additional charges/credits, please charge/credit our deposit account no. 02-2666.

Respectfully submitted,
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